

**Amendments to the Claims**

The following Listing of Claims will replace all prior versions and listings of claims in the application.

**Listing of Claims**

1. (Currently amended) A method for handling plug-and-play events occurring at a client, said method comprising ~~the steps of:~~:

(a) providing a client communicating with a server over a network using a presentation-level protocol;

(b) detecting a plug-and-play event notification regarding a device in communication with the client;

(c) redirecting said event notification to the server from the client; and

(d) receiving, in response to the redirection of the event notification, a command from the server, the a-command directed to said device.

2. (Currently amended) The method of claim 1 wherein redirecting said event notification step (e)-further comprises ~~the steps of:~~:

(c-1) generating a context identifier, said context identifier representing a virtual COM port;

(c-2) binding the context identifier to the event notification; and

(c-3) transmitting the bound context identifier and event notification to the server.

3. (Currently amended) The method of claim 1 wherein redirecting said event notification includes redirecting said event notification via step (e)-uses a virtual channel to redirect said event notification.

4. (Currently amended) The method of claim 1, wherein receiving a command from the server step (d)-further comprises ~~the steps of:~~:

(d-1) receiving from a server a command including a generated context identifier;

(d-2) identifying the device using the context identifier; and

(d-3) issuing a command to the identified device.

5. (Original) The method of claim 1 wherein said event notification is generated as a result of a device arrival.

6. (Original) The method of claim 5 wherein said command is an open command.

7. (Original) The method of claim 1 wherein said event notification is generated as a result of a device removal.

8. (Original) The method of claim 7 wherein said command is a close command.

9. (Original) The method of claim 1 wherein said event notification is associated with at least one of a GUID, vendor ID, product ID and actual device name.

10. (Original) The method of claim 1 wherein the device in communication with the client uses one of the USB (Universal Serial Bus) protocol, IEEE 1394 protocol, Bluetooth protocol, wi-fi protocol, wireless protocol, and infrared (IR) protocol to communicate with the client.

11. (Currently amended) A method for handling plug-and-play events occurring at a client in communication with a server using a presentation-level protocol, said method comprising ~~the steps of:~~

- a) receiving from said client a plug-and-play event notification regarding a device in communication with the client;
- b) notifying an application program hosted by the server of the occurrence of the event notification;
- c) receiving, in response to notification of the occurrence of the event notification, a command from the application program hosted by the server, the a-command directed to the device; and
- d) transmitting to the client a command directed to the device.

12. (Currently amended) The method of claim 11 wherein the event notification received in step (a) from the client is received over a virtual channel.
13. (Currently amended) The method of claim 11 wherein the event notification received in step (a) includes a context identifier bound to the event notification, said context identifier representing a virtual COM port.
14. (Currently amended) The method of claim 11, further comprising the steps of: creating a server-unique name to identify the device connected to the client that generated the event notification, said server unique name used in mapping the client device to a specific session on the server established by the presentation level protocol.
15. (Currently amended) The method of claim 11 wherein notifying an application program step (b) further comprises the step of: transmitting the event notification to applications communicating with the server within the session.
16. (Currently amended) The method of claim 11 wherein notifying an application program step (b) further comprises the step of: transmitting the event notification only to applications communicating with the server which have previously registered a callback for a type of event causing the event notification.
17. (Original) The method of claim 11 wherein said event notification is generated as a result of a device arrival.
18. (Original) The method of claim 17 wherein said command is an open command.
19. (Original) The method of claim 11 wherein said event notification is generated as a result of a device removal.
20. (Original) The method of claim 19 wherein said command is a close command.

21. (Cancelled)

22. (Cancelled)

23. (Currently amended) A method for handling events occurring at a client in communication with a server using a presentation-level protocol, said method comprising ~~the steps of:~~

- a) receiving from said client an event notification regarding a device in communication with the client;
- b) notifying an application program hosted by the server of the occurrence of the event notification;
- c) receiving, in response to notification of the occurrence of the event notification, a command from the application program hosted by the server, the a-command directed to the device; and
- d) transmitting to the client a command directed to the device.

24. (Currently amended) A method for informing a server about the presence of devices connected to a client, said method comprising ~~the steps of:~~

- (a) providing a client communicating with a server over a network using a presentation-level protocol;
- (b) emulating a plug-and-play event notification regarding a device in communication with the client;
- (c) redirecting said emulated event notification to the server over a network; and
- (d) receiving, in response to the redirection of the event notification, a command from the server, the a-command directed to said device.

25. (Currently amended) The method of claim 24 wherein redirecting said emulated event step ~~(e)-further comprises the steps of:~~

- (c-1) generating a context identifier, said context identifier representing a virtual COM port;
- (c-2) binding the context identifier to the emulated event notification; and

(c-3) transmitting the bound context identifier and emulated event notification to the server.

26. (Currently amended) The method of claim 24 wherein the redirection of the emulated event notification ~~in step (e)~~ uses a virtual channel.

27. (Currently amended) The method of claim 24, wherein receiving the command from the server step (d) further comprises the steps of:

- (d-1) receiving from a server a command identifying the generated context ID;
- (d-2) identifying the device using the context; and
- (d-3) issuing a command to the identified device.

28. (Currently amended) The method of claim 27 wherein the emulated event notification received ~~in step (b)~~ from the client is received over a virtual channel.

29. (Currently amended) The method of claim 27 wherein the emulated event notification received ~~in step (b)~~ includes a context ID bound to the emulated event notification.

30. (Currently amended) The method of claim 27 wherein redirecting said emulated event step (e) further comprises the step of: broadcasting the emulated event notification to applications communicating with the server.

31. (Currently amended) The method of claim 27 wherein redirecting said emulated event step (e) further comprises the step of: transmitting the emulated event notification only to applications communicating with the server which have previously registered a callback with the server for a type of event causing the emulated event notification.

32. (Currently amended) The method of claim 24, wherein said client is a proxy client on a server interfacing, ~~said server interfaced~~ with at least one additional server.

33. (Currently amended) A method for informing a server about the presence of network resources connected to a proxy client, said method comprising the steps of:

- a) emulating a plug-and-play event notification regarding a network resource in communication with the proxy client;
- b) redirecting said emulated event notification to a server; and
- c) receiving, in response to the redirection of the event notification, a command from the server, the a-command directed to said network resource.

34. (Currently amended) An article of manufacture having embodied thereon A computer-readable program having executable instructions -means for handling plug-and-play events occurring at a client communicating with a server over a network using a presentation-level protocol, the computer readable medium article of manufacture comprising:

computer readable program means-instructions for detecting a plug-and-play event notification regarding a device in communication with the client;

computer readable program means-instructions for redirecting said event notification to the server; and

computer readable program means-instructions for receiving, in response to the redirection of the event notification, a command from the server, the a-command directed to said device.

35. (Currently amended) The article of manufacture of claim 34 wherein the computer-readable medium of claim 34 program means for redirecting said event notification further comprising comprises:

computer readable program means-instructions for generating a context identifier, said context identifier representing a virtual COM port;

computer readable program means-instructions for binding the context identifier to the event notification; and

computer readable program means-instructions for transmitting the bound context identifier and event notification to the server.

36. (Currently amended) The article of manufacture computer readable medium of claim 34

wherein instructions the computer readable program means for redirecting said event notification include instructions that use uses a virtual channel to redirect said event notification.

37. (Currently amended) The computer readable medium article of manufacture of claim 34 wherein instructions the computer readable program means for receiving a command, from the server, a command directed to said device, further comprisecomprises:

instructions computer readable program means for receiving a command from a server that includes a command including the generated context identifier;

instructions computer readable program means for identifying the device using the context identifier; and

instructions computer readable program means for issuing a command to the identified device.

38. (Currently amended) The computer readable medium article of manufacture of claim 34 wherein said event notification is generated as a result of a device arrival.

39. (Currently amended) The computer readable medium article of manufacture of claim 38 wherein said command is an open command.

40. (Currently amended) The computer readable medium article of manufacture of claim 34 wherein said event notification is generated as a result of a device removal.

41. (Currently amended) The computer readable medium article of manufacture of claim 40 wherein said command is a close command.

42. (Currently amended) The article of manufacture computer readable medium of claim 34 wherein said event notification is associated with at least one of a GUID, vendor ID, product ID and actual device name.

43. (Currently amended) The article of manufacture computer readable medium of claim 34 wherein the device in communication with the client uses one of the USB (Universal Serial Bus)

protocol, IEEE 1394 protocol, Bluetooth protocol, wi-fi protocol, wireless protocol, and infrared (IR) protocol to communicate with the client.

44. (Currently amended) A computer readable medium having executable instructions An article of manufacture having embodied thereon computer readable program means for handling plug-and-play events occurring at a client communicating with a server over a network using a presentation-level protocol, the computer readable medium comprising:

instructions computer readable program means for receiving from said client a plug-and-play event notification regarding a device in communication with the client;

instructions computer readable program means for notifying an application program hosted by the server of the occurrence of the event notification;

instructions computer readable program means for receiving, in response to notification of the occurrence of the event notification, a command from the application program hosted by the server, the a-command directed to the device; and

instructions computer readable program means for transmitting to the client a command directed to the device.

45. (Currently amended) The computer readable medium article of manufacture of claim 44 wherein the event notification is received over a virtual channel.

46. (Currently amended) The computer readable medium article of manufacture of claim 44 wherein the received event notification includes a context identifier bound to the event notification, said context identifier representing a virtual COM port.

47. (Currently amended) The computer readable medium article of manufacture of claim 44, further comprising:

computer readable program means instructions for creating a server-unique name to identify the device connected to the client that generated the event notification, said server unique name used in mapping the client device to a specific session on the server established by the presentation level protocol.

48. (Currently amended) The computer readable medium article of manufacture of claim 44 wherein the instructions computer readable program means for notifying an application program hosted by the server of the occurrence of the event notification further comprise~~comprises~~:  
instructions computer readable program means for transmitting the event notification to applications communicating with the server within the session.

49. (Currently amended) The computer readable medium article of manufacture of claim 44 wherein the instructions computer readable program means for notifying an application program hosted by the server of the occurrence of the event notification further comprise~~comprises~~:  
computer readable program means instructions for transmitting the event notification only to applications communicating with the server which have previously registered a callback for a type of event causing the event notification.

50. (Currently amended) The computer readable medium article of manufacture of claim 44 wherein said event notification is generated as a result of a device arrival.

51. (Currently amended) The computer readable medium article of manufacture of claim 50 wherein said command is an open command.

52. (Currently amended) The computer readable medium article of manufacture of claim 44 wherein said event notification is generated as a result of a device removal.

53. (Currently amended) The computer readable medium article of manufacture of claim 52 wherein said command is a close command.

54. (Cancelled)

55. (Cancelled)

56. (Currently amended) A computer readable medium An article of manufacture having executable instructions embodied thereon computer readable program means for handling events

occurring at a client communicating with a server over a network using a presentation-level protocol, the computer readable medium comprising:

computer readable program means-instructions for receiving from the client an event notification regarding a device in communication with the client;

computer readable program means-instructions for notifying an application program hosted by the server of the occurrence of the event notification;

computer readable program means-instructions for receiving, in response to notification of the occurrence of the event notification, a command from the application program hosted by the server, the a-command directed to the device; and

computer readable program means-instructions for transmitting to the client a command directed to the device.

57. (Currently amended) A computer readable medium An article of manufacture-having executable instructions embodied thereon computer readable program means for informing a server about the presence of devices connected to a client communicating with a server over a network using a presentation-level protocol, the computer readable medium comprising:

computer readable program means-instructions for emulating a plug-and-play event notification regarding a device in communication with the client;

computer readable program means-instructions for redirecting said emulated event notification to a server; and

computer readable program means-instructions for receiving, in response to the redirection of the event notification, a command from the server, the a-command directed to said device.

58. (Currently amended) The computer readable medium article of manufacture of claim 57 wherein the instructions computer readable program means for redirecting said emulated event notification further comprise~~comprises~~:

computer readable program means-instructions for generating a context identifier, said context identifier representing a virtual COM port; computer-readable program means for binding the context identifier to the emulated event notification; and

~~computer readable program means instructions~~ for transmitting the bound context identifier and emulated event notification to the server.

59. (Currently amended) The computer readable medium article of manufacture of claim 57 wherein the redirection of the emulated event notification uses a virtual channel.

60. (Currently amended) The computer readable medium article of manufacture of claim 57, wherein the ~~instructions computer readable program means~~ for transmitting the bound context identifier and emulated event notification to the server further ~~comprise~~comprises:

~~instructions computer readable program means~~ for receiving from a server a command identifying the generated context ID;

~~instructions computer readable program means~~ for identifying the device using the context; and

~~computer readable program means instructions~~ for issuing a command to the identified device.

61. (Currently amended) The computer readable medium article of manufacture of claim 60 wherein the emulated event notification is received over a virtual channel.

62. (Currently amended) The computer readable medium article of manufacture of claim 60 wherein the emulated event notification includes a context ID bound to the emulated event notification.

63. (Currently amended) The computer readable medium article of manufacture of claim 60 wherein the ~~instructions computer readable program means~~ for identifying the device using the context further ~~comprise~~comprises: ~~computer readable program means instructions~~ for broadcasting the emulated event notification to applications communicating with the server.

64. (Currently amended) The computer readable medium article of manufacture of claim 60 wherein the ~~computer readable program means instructions~~ for identifying the device using the context further ~~comprise~~comprises:

~~computer readable program means instructions~~ for transmitting the emulated event notification only to applications communicating with the server which have previously registered a callback with the server for a type of event causing the emulated event notification.

65. (Currently amended) The ~~article of manufacture~~ ~~computer readable medium~~ of claim 57, wherein said client is a proxy client on a server, said server interfaced with at least one additional server.

66. (Currently amended) ~~A computer readable medium An article of manufacture having executable instructions embodied thereon~~ ~~computer readable program means~~ for informing a server about the presence of network resources connected to a proxy client, ~~the computer readable medium~~ comprising:

~~instructions~~ ~~computer readable program means~~ for emulating a plug-and-play event notification regarding a network resource in communication with the proxy client;

~~computer readable program means~~ ~~instructions~~ for redirecting said emulated event notification to a server; and

~~computer readable program means~~ ~~instructions~~ for receiving, ~~in response to the redirection of the event notification, a command from the server, the a-command directed to said network resource.~~

67. (Currently amended) A method for enumerating devices communicating with a client that have been mapped into a session on a server, said method comprising ~~the steps of~~:

launching an application in a user session on a server intercepting device enumeration methods in the server-based user session;

redirecting the device enumeration methods to the server;

emulating an arrival event for at least one device enumerated by the redirected method, said device being a device in communication with a client system that was mapped into the user session prior to said application launch; ~~and~~

notifying said application hosted by the server of the occurrence of the ~~arrival~~ event notification; ~~and~~

receiving, in response to notification of the occurrence of the arrival event, a command from the application hosted by the server, the command directed to the at least one device.

68. (Currently amended) A method for handling plug-and-play events occurring at a client, said method comprising the steps of:

- (a) detecting a plug-and-play event notification regarding a device communicating with the client via a USB connection on the client;
- (b) redirecting said event notification to a server over a network; and
- (c) receiving, in response to the redirection of the event notification, a command from the server, the a-command directed to said device.

69. (Original) The method of claim 68 wherein said event notification is generated as a result of a device arrival.

70. (Original) The method of claim 69 wherein said command is an open command.

71. (Original) The method of claim 68 wherein said event notification is generated as a result of a device removal.

72. (Original) The method of claim 71 wherein said command is a close command.

73. (Original) The method of claim 68 wherein said event notification is associated with at least one of a GUID, vendor ID, product ID and actual device name.

74. (Currently amended) The method of claim 68 wherein redirecting said event notification step (b)-further comprises the steps of:

- (b-1) generating a context identifier, said context identifier representing a virtual COM port;
- (b-2) binding the context identifier to the event notification; and
- (b-3) transmitting the bound context identifier and event notification to the server.

75. (Currently amended) The method of claim 68 wherein redirecting said event notification step  
~~(b) further comprises redirecting said event notification via uses a virtual channel to redirect said event notification.~~

76. (Currently amended) The method of claim 68, receiving a command from the server wherein step (e) further comprises the steps of:

- (c-1) receiving from a server a command including a generated context identifier;
- (c-2) identifying the device using the context identifier; and
- (c-3) issuing a command to the identified device.